Claims

What is claimed is:

[c1] A method of testing a graphical user interface, comprising:

selecting a widget of the graphical user interface;

associating an access mode with the widget;

generating a mode-specific input message based on the widget and the access mode;

sending the mode-specific input message to the graphical user interface;

detecting a mode-specific response from the graphical user interface using a detection tool; and

evaluating the graphical user interface based on the mode-specific response.

[c2] The method of claim 1, wherein selecting the widget of the graphical user interface occurs independently of associating the access mode with the widget.

[c3] The method of claim 1, wherein selecting the widget comprises:

creating a simulated user action associated with the widget; and

reading the simulated user action from a test suite.

[c4] The method of claim 1, wherein associating the access mode is random.

[c5] The method of claim 1, wherein the detection tool comprises a widget hierarchy detection tool.

[c6] The method of claim 1, wherein the detection tool comprises a bitmap detection tool.

[c7] The method of claim 1, wherein generating the mode-specific input message comprises:

detecting the access mode;

detecting the widget;

selecting a mode-specific library message using the access mode and the widget;

modifying the mode-specific library message into a mode-specific input message; and

sending the mode-specific input message to the graphical user interface.

[c8] The method of claim 7, further comprising:

storing the mode-specific library message in a tabular data structure.

[c9] The method of claim 7, further comprising

storing the mode-specific library message using a class hierarchy.

[c10] The method of claim 1, wherein evaluating the graphical user interface comprises comparing the mode-specific response to a proper mode-specific response.

[c11] The method of claim 10, wherein the proper mode-specific response is stored in a reference file.

[c12] The method of claim 1, further comprising:

generating an output based on evaluating the graphical user interface.

[c13] The method of claim 12, further comprising:

displaying the output on a display device.

[c14] The method of claim 12, further comprising:

storing the output on a computer readable medium.

[c15] The method of claim 1, further comprising:

associating an alternate user action with the widget.

[c16] A method of testing a graphical user interface, comprising:

selecting a widget of the graphical user interface;

associating an access mode with the widget;

generating a mode-specific input message based on the widget and the access mode;

sending the mode-specific input message to the graphical user interface;

detecting a mode-specific response from the graphical user interface using a detection tool;

evaluating the graphical user interface based on the mode-specific response;

generating an output based on evaluating the graphical user interface; and

associating an alternate user action with the widget.

[c17] A computer system for testing a graphical user interface, comprising:

a processor;

a memory;

a storage device;

a display device; and

software instructions stored in the memory for enabling the computer system under the control of the processor, to perform:

selecting a widget of the graphical user interface;

associating an access mode with the widget;

generating a mode-specific input message based on the widget and the access mode;

sending the mode-specific input message to the graphical user interface;

detecting a mode-specific response from the graphical user interface using a detection tool; and

evaluating the graphical user interface based on the mode-specific response.

[c18] A computer system for testing a graphical user interface, comprising:

a processor;

a memory;

a storage device;

a display device; and

software instructions stored in the memory for enabling the computer system
under the control of the processor, to perform:

selecting a widget of the graphical user interface;

associating an access mode with the widget;

generating a mode-specific input message based on the widget and the
access mode;

sending the mode-specific input message to the graphical user interface;

detecting a mode-specific response from the graphical user interface using a
detection tool; and

evaluating the graphical user interface based on the mode-specific response.

generating an output to the display device based on evaluating the graphical
user interface; and

associating an alternate user action with the widget.

[c19] A storage medium for storing a mode-specific library message, comprising:

a plurality of rows associated with a widget; and

a plurality of columns associated with an access mode.

[c20] The storage medium of claim 19, wherein a combination of the access mode and
the widget enables a table lookup for a mode-specific library message.

[c21] An apparatus for testing a graphical user interface, comprising:

means for selecting a widget of the graphical user interface;

means for associating an access mode with the widget;

means for generating a mode-specific input message based on the widget and the access mode;

means for sending the mode-specific input message to the graphical user interface;

means for detecting a mode-specific response from the graphical user interface using a detection tool;

means for evaluating the graphical user interface based on the mode-specific response;

means for generating an output based on evaluating the graphical user interface; and

means for associating an alternate user action with the widget.